FUGATE PEDIGREE

Why So Blue?

mm
Mm
MM

1. What is the genotype for 1A? **Mm**

2. What is the genotype of 3A? **Mm**

3. What is the genotype of 3B? **Mm**

4. What are the possible genotypes for 4A? **Mm or MM**

5. Calculate the allele frequency for the seven Fugate siblings in the second-generation (labeled with a 2). Do not include their husbands and wives.

    a. Frequency (M): 3/14 = **0.21 or 21%**

    b. Frequency (m): 11/14 = **0.79 or 79%**

6. (Bonus) Calculate the allele frequency for the three siblings in the third-generation, located in the middle of the pedigree (labeled with a 3). Do not include their husbands and wives.

    a. Frequency (M): 2/6 = **0.33 or 33%**

    b. Frequency (m): 4/6 = **0.67 or 67%**